

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI  
SOUTHERN DIVISION**

**HONORA HILLIER**

**PLAINTIFF**

**VS.**

**CAUSE NO. 1:08-cv-00671-LTS-RHW**

**USAA CASUALTY INSURANCE COMPANY**

**DEFENDANT**

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**MEMORANDUM OF USAA CASUALTY INSURANCE COMPANY IN SUPPORT OF  
ITS MOTION TO EXCLUDE EXPERT TESTIMONY OF NEIL B. HALL**

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**I. Introduction**

USAA CIC respectfully submits this memorandum in support of its motion, pursuant to Federal Rules of Evidence 104(a), 702, 703, and 403, to exclude the testimony of plaintiff's expert witness, Neil B. Hall. The plaintiff proffers Mr. Hall to testify that wind, rather than water, destroyed her house. Although Mr. Hall does hold a limited license from the Mississippi Engineering Board to provide testimony, Mr. Hall does not actually hold any degree in engineering nor have any expertise in meteorology. Mr. Hall's report offers no calculations or physical evidence of any kind to show that wind, rather than water, destroyed plaintiff's house. Instead, Mr. Hall's methodology depends entirely on a chronology of wind speeds and storm surge levels prepared for litigation by plaintiff's meteorologist Dr. Stephen Harned. Relying on this purported chronology and on his erroneous application of the Enhanced Fujita Scale (the "EF Scale") -- a scale designed to deduce wind speeds from tornadoes based on observed damage -- Mr. Hall concludes that winds destroyed the plaintiff's house prior to the arrival of peak storm surge levels.

Ultimately, Mr. Hall's main qualification for the proposed testimony is his willingness to market himself in Hurricane Katrina litigation as a professional expert witness and a self-

declared forensic engineer. In fact, Mr. Hall has written as many as one thousand one hundred (1100) expert reports for Hurricane Katrina in Mississippi and Louisiana, an average of more than one report every business day since Hurricane Katrina up to his deposition in this case. (Deposition of Neil B. Hall ("Hall Dep."), 33:23-34:15, 117:7-9, February 2, 2009, attached hereto as Exhibit "2".) All but thirty or forty of those reports were written for the insured, and in every report written for the insured Mr. Hall's opinion has been that wind destroyed the house before the flood got there. (Hall Dep. at 117:7-22.)

Mr. Hall's history of reports regarding Katrina claims, along with his conclusory opinions and lack of analysis in this case, demonstrate that his proposed testimony should be subjected to strict scrutiny under *Daubert*. "[I]f a proposed expert is a 'quintessential expert for hire,' then it seems well within a trial judge's discretion to apply the *Daubert* factors with **greater rigor** . . . ." *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 435 (6th Cir. 2007) (emphasis added). "In all cases, the 'court must ensure that it is dealing with an expert, not just a hired gun.'" *Greenwich Ind., L.P. v. Specialized Seating, Inc.*, 2003 WL 21148389, at \*4 (N.D. Ill. May 16, 2003) (quoting *Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1997)). Indeed, the *Daubert* factors are needed to test "whether the expert is a hired gun or a person whose opinion in the courtroom will withstand the same scrutiny that it would among his professional peers." *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997).

For the reasons set forth herein, Mr. Hall's opinion is unreliable and inadmissible. The plaintiff cannot meet her burden to show otherwise.

## **II. Threshold Scrutiny of Expert Testimony**

This Court must fulfill a vital "gatekeeping role" that requires it to make a threshold assessment "whether the reasoning or methodology underlying the [expert] testimony is

scientifically valid and of whether that reasoning and methodology properly can be applied to the facts in issue." *Daubert v Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 at 592-93 (1993).

Throughout the evaluation, "the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." *Id.* at 589. These "exacting standards of reliability," *Weisgram v. Marley Co.*, 528 U.S. 440, 442 (2000), require far "more than subjective belief or unsupported speculation." *Daubert*, 509 U.S. at 590. Yet Mr. Hall has neither relied on scientific data applicable to these facts, nor reliably applied a scientific methodology.

Federal Rule of Evidence 702 requires a sound basis and a sound methodology, properly applied to the facts of the case, before an opinion can be admitted into evidence.

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, *if* (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, *and* (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702 (emphasis added). Thus, courts must exclude expert evidence that is not "based on sufficient facts or data," that is not "the product of reliable principles and methods," or whose methods are not applied "reliably to the facts of the case." *Id.* Indeed, "*any* step that renders the analysis unreliable ... renders the expert's testimony inadmissible. ***This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.***" Fed. R. Evid. 702 advisory committee's note (2000) (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994)) (emphasis and omission in original).

An expert's "conclusions and methodology are not entirely distinct from one another," *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997), and the difference between an expert's conclusions and methodology "has only limited practical import." *In re Paoli*, 35 F.3d at 746. "When a judge disagrees with the conclusions of an expert, it will generally be because he or she

thinks that there is a mistake at some step in the investigative or reasoning process of that expert." *Id.* As part of its gate keeping function, the court "must examine the expert's conclusions in order to determine whether they could reliably flow from the facts known to the expert and the methodology used." *Oddi v. Ford Motor Co.*, 234 F.3d 136, 146 (3d Cir. 2000) (citation omitted). Upon doing so, a court may, for example, "conclude that there is simply too great an analytical gap between the data and the opinion proffered," and properly preclude the expert's testimony. *Joiner*, 522 U.S. at 146.

"It is axiomatic that an expert, no matter how good his credentials, is not permitted to speculate." *Goebel v. Denver & Rio Grande W. R.R. Co.*, 215 F.3d 1083, 1088 (10th Cir. 2000). Indeed, a core rule of evidence is that "speculation is unreliable . . . and is inadmissible." *Dunn v. Sandoz Pharm. Corp.*, 275 F. Supp. 2d 672, 684 (M.D.N.C. 2003). "The courtroom is not the place for scientific guesswork, even of the inspired sort." *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996). "Expert testimony is inadmissible if it is speculative, unsupported by sufficient facts, or contrary to the facts of the case." *Marmo v. Tyson Fresh Meats, Inc.*, 457 F.3d 748, 757 (8th Cir. 2006).

Plaintiff, as the proponent of the expert evidence, bears the burden of showing that it is admissible. *Mathis v. Exxon Corp.*, 302 F.3d 448, 459-60 (5th Cir. 2002); *Tanner v. Westbrook*, 174 F.3d 542, 547 (5th Cir. 1999) (superseded on other grounds) (citation omitted); *see also Daubert*, 509 U.S. at 592 n.10. USAA CIC does **not** bear the burden of demonstrating its inadmissibility. *See Rieger v. Orlor, Inc.*, 427 F. Supp. 2d 99, 102 (D. Conn. 2006); *Soldo v. Sandoz Pharms. Corp.*, 244 F. Supp. 2d 434, 534 (W.D. Pa. 2003).

*Daubert* carefully distinguishes between the threshold reliability inquiry that plaintiff must satisfy and the role of cross-examination. "Vigorous cross-examination, presentation of

contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky *but admissible* evidence. . . . These conventional devices . . . are the appropriate safeguards *where* the basis of scientific testimony *meets the standards* of Rule 702." *Daubert*, 509 U.S. at 596 (emphasis added). As the highlighted language shows, the plaintiff must first satisfy her burden of demonstrating that the proffered evidence is admissible. See *McLendon v. Georgia Kaolin, Co., Inc.*, 841 F. Supp. 415, 418 (M.D. Ga. 1994) ("these devices are only sufficient safeguards where the scientific testimony meets the standards of Rule 702"); see also *Peitzmeier v. Hennessy Indus., Inc.*, 97 F.3d 293, 297 (8th Cir. 1996) ("cross-examination at trial" cannot "take the place of scientific peer review"); *Porter v. Whitehall Labs.*, 791 F. Supp. 1335, 1345 & n.10 (S.D. Ind. 1992) ("an expert's opinion must have some basis other than hypothesis before the opinion may have the privilege of being assailed by cross-examination") (emphasis in original), *aff'd*, 9 F.3d 607 (7th Cir. 1993).

Even if Mr. Hall's testimony could somehow survive this Court's threshold scrutiny under Rule 702 (which it cannot), then it would be subject to further review and preclusion under Rule 403. "[E]xpert evidence can be both powerful and quite misleading. . . . Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 . . . exercises more control over experts than over lay witnesses." *Daubert*, 509 U.S. at 595. To this end, an expert opinion's "lack of reliable support may render it more prejudicial than probative, making it inadmissible under [Rule] 403." *Viterbo v. Dow Chem. Co.*, 826 F.2d 420, 422 (5th Cir. 1987).

### **III. Plaintiff Cannot Establish That Mr. Hall's Opinion Is Based on Reliable Data**

As part of its role as gatekeeper, the district court must ensure that the underlying facts and data upon which a proffered expert's opinions are based are in and of themselves reliable. See *Allen*, 102 F.3d at 196; *Daubert*, 509 U.S. at 595. If an expert's opinion is based on

unreliable facts, the opinion must be excluded. *See Brown v. Parker-Hannifin Corp.*, 919 F.2d 308, 311 (5th Cir. 1990); *In re TMI Litig.*, 193 F.3d 613, 697 (3d Cir. 1999); *Montgomery Cty. v. Microvote Corp.*, 320 F.3d 440, 448 (3d Cir. 2003). Here, the data used by Mr. Hall suffers from a variety of deficiencies causing it to be unreliable.

#### **A. Mr. Hall's Inspection of Plaintiff's Property Was Defective**

Mr. Hall performed an inspection of the plaintiff's property on December 24, 2008, over three years since the property was destroyed by Hurricane Katrina. Mr. Hall's inspection revealed that the plaintiff's guesthouse had already been repaired and he did not access the interior. Further, the property had been sold and the concrete slab and masonry pier foundation of the main residence had been cleared. (Report of Neil B. Hall ("Report"),<sup>4</sup> attached hereto as Exhibit "1"; Hall Dep. at 15:15-21, 16:11-24, 75:9-76:3.) Mr. Hall's report is based in part on a site inspection conducted more than three years after Hurricane Katrina and after the main residence had already been demolished and the guesthouse had been repaired. In other words, there was no physical evidence available for review at the time of Mr. Hall's inspection.

Lacking this evidence of the post-Katrina condition of the plaintiff's property, Mr. Hall could have consulted photographs included in USAA CIC's engineering reports prepared by HAAG Engineering and EFI Global or the photographs contained in the plaintiff's KCE Matrix engineering report.

But Mr. Hall failed to even consider those relevant photographs of the damage shortly after Hurricane Katrina. (Report at 4, 5, and 6.) Instead, Mr. Hall prefers his belated and fruitless site inspection and a review of a limited selection of available photographs obtained from the plaintiff for which no source is identified. (Hall Dep. at 8:7 – 9:11.) Plaintiff cannot show that

the methods and basis for Mr. Hall's opinion are reliable when he depends on an inadequate inspection and fails to review all the available photographic evidence.

**B. Mr. Hall's Report is based on a Poor Understanding of the Construction Quality of Plaintiff's House**

Mr. Hall's report is also unreliable because it is based on little more than a superficial understanding of the construction of the plaintiff's house. Mr. Hall concedes that he does not know how the plaintiff's home was constructed or whether it was built to code standards. (Hall Dep. at 123:14 – 125:4.) Mr. Hall simply assumes that the main residence was poorly constructed and does not know how strong the guest house was. (Hall Dep. at 124:8-22.) Mr. Hall bases his knowledge of the construction of the plaintiff's structures on an interview with the plaintiff in which she indicated there had never been a major renovation to bring it up to code. (Hall Dep. at 124:3-7.) There is no evidence that Mr. Hall ever considered any blueprints or plans of plaintiff's house in forming his conclusions. (Report, *passim*.)

Mr. Hall's general lack of knowledge concerning the construction, makeup, and quality of plaintiff's house renders him unequipped to offer a reliable engineering opinion as to the cause of the damage it sustained during Hurricane Katrina. This is especially so because his report is predicated upon (i) an opinion of the house's construction quality under the EF Scale, and (ii) an opinion of how a house of such quality would have reacted to the winds assumed in Dr. Harned's hurricane chronology. (*See* Report at 8.) Under Mr. Hall's unprecedented application of the EF Scale, he inputs the quality of a house's construction and a sustained windspeed to determine a definitive and conclusive description of the damage that such a house would have sustained. (*Id.*) Under this theory, depending on whether a house is of expected quality, lower quality, or upper quality, a given amount of wind may cause more or less destruction. (*See id.*) For example, the EF Scale Report clearly states that "[u]se of hurricane clips or other positive anchorage devices"

indicates a house of upper bound construction capable of withstanding greater winds. (*A Recommendation for an Enhanced Fujita Scale* ("Recommendation"), 9, Wind Science and Engineering Center, Texas Tech University, Oct. 10, 2006, attached hereto as Exhibit "3"; Report, 4; *see infra* Part V(A).)

Here, because Mr. Hall has an incomplete understanding of the construction quality of plaintiff's house, he cannot reliably apply the EF Scale to determine the damage winds would have caused – even using his novel misuse of the EF Scale. For example, Mr. Hall arbitrarily assumes that because the plaintiff's main residence was constructed in the 1830's it falls into the "LB" or "lower bound" category in relation the EF Scale. (Report at 8.) Accordingly, Mr. Hall's lack of knowledge regarding the construction quality of plaintiff's house inflates the amount of damage that the assumed wind speeds would have caused under his analysis.

Mr. Hall's methodology suffers from a fundamental fallacy: "Garbage in. Garbage out." *Coffey v. Dowley Mfg. Co.*, 89 F. App'x 927, 931 (6th Cir. 2003). "As with any model, the data input is crucial." *In re TMI Litig. II*, 911 F. Supp. 775, 792 n.9 (M.D. Penn. 1996) (citation omitted), *aff'd*, 193 F.3d 613 (3d Cir. 1999). "[I]f the 'data' from which [an expert's] modeling assumptions arise is invalid, or non-existent, then there is no hope that his technique, much less his results, are going to be reliable." *Castellow v. Chevron USA*, 97 F. Supp. 2d 780, 792 (S.D. Tex. 2000). Therefore, Mr. Hall's report is, at its heart, based on unreliable data and should be excluded.

#### **IV. Plaintiff Cannot Show That Mr. Hall's Methods Are Sound**

For every conclusion contained in an expert's proposed testimony, the court must determine if the methodology leading to that conclusion is sound. *Allen v. Pennsylvania Eng'g Corp.*, 102 F.3d 194, 196 (5th Cir. 1996). A court may appropriately exclude expert testimony



when it finds that an expert has extrapolated data, and there is "too great an analytical gap between the data and the opinion proffered." *General Elec. Co.*, 522 U.S. at 146; *Moor*, 151 F.3d at 279. Such testimony should also be excluded when it is speculative or not amenable to scientific verification. *Moore*, 151 F.3d at 273. Under *Daubert*, an engineering expert must "show how his conclusion . . . is grounded in – follows from – an expert study of the problem." *Navarro*, 117 F.3d at 1032. Plaintiff cannot meet her burden to show that Mr. Hall's methods are reliable.

#### **A. Mr. Hall Erroneously Relies on an Inapposite Tornado Weather Scale**

With wind speeds from Dr. Harned's chronology in hand, Mr. Hall relies entirely on his novel application of the EF Scale for tornados to conclude that such winds destroyed plaintiff's house. (Report at 9.) The EF Scale was designed to deduce *tornado wind speeds* from the amount of damage caused *by a tornado*.<sup>1</sup> It provides estimated wind speeds based on damage to structures, such as residences, of varying levels of quality. (Report at 7.) Mr. Hall rejects the purpose of the EF Scale and invents his own.

Reasoning backwards, Mr. Hall contends that the EF Scale's *possible* damage indicators *definitively prove* that the assumed wind gusts in Dr. Harned's report would have completely destroyed the main residence before the surge reached the elevated floor level. (*Id.* at 7- 9.) Mr. Hall's report does not support this conclusion with any evidence of observed physical damage reflecting causation from wind, rather than water. (*Id.*, *passim*.) Rather, without any supporting analysis, Mr. Hall treats the EF Scale's damage indicators as conclusive proof that the elevated

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<sup>1</sup> The EF Scale was developed from 2000 to 2004 by dozens of expert meteorologists and expert engineers at the Fujita Scale Enhancement Project of the Wind Science and Engineering Research Center at Texas Tech University. Their findings have been published in an official report entitled: "A Recommendation for an Enhanced Fujita Scale (EF-Scale)." (*Recommendation, passim*.) A full copy of the EF-Scale Report can be obtained on the National Weather Service's website at: <http://www.spc.noaa.gov/efscale/>.

portion of plaintiff's main residence was destroyed by wind. Mr. Hall uses what has been described by others as a reverse technique, where he is given a wind speed and uses the EF scale to determine what the damage was at that wind speed. (Hall Dep. at 101:25-102:4.)

Mr. Hall's backwards application of the EF Scale is simply unsupported in the scientific community. Indeed, members of the panel who created the EF Scale oppose Mr. Hall's misuse of the EF Scale, but he continues to misuse it, unabated. In a report titled *Intended Use and Potential Misuse of the EF Scale* presented at the 11<sup>th</sup> Americas Conference on Wind Engineering on June 22-26, 2009, J. Arn Womble, Douglas A. Smith, James R. McDonald & Kishor C. Mehta oppose use of the EF Scale in the way Mr. Hall is using it. The authors stress that the EF Scale is *not* designed to establish the damage level of a specific building from a specific windspeed, and if used in this manner, it is likely to give results with a gross error. (*Intended Use and Potential Misuse of the EF Scale*, ¶2, p.6, Americas Conference on Wind Engineering, June 22-26, 2009, attached hereto as Exhibit "4".) The gross errors described are illustrated in this very case. Hall's reverse application of the EF Scale to the plaintiff's main residence indicates a degree of damage of 9, that the roof and exterior walls would have collapsed, using Dr. Harned's windspeed and assuming the main residence was of poor construction. (Report at 7-9.) However, application of the same windspeed to the plaintiff's guesthouse would indicate a degree of damage of 7, assuming normal construction. According to the EF Scale, DOD 7 indicates collapsed exterior walls when in fact the exterior walls of the guesthouse remain standing. (Report at 8.) Even if you were to assume that the guesthouse was built to a higher standard of construction, meaning UB instead of EXP on the EF Scale, you would expect to see a degree of damage of 5 where the entire house shifts off the foundation. Yet, the guesthouse was sitting firmly upon its foundation post-Katrina. While Mr. Hall's

reverse application of the EF scale gives him the desired result when applied to the main residence, application of his own method fails when applied to the guesthouse. In order to account for this fatal discrepancy in his methodology, Mr. Hall concludes that the same winds that destroyed the main residence did not attack the guesthouse. (Hall Dep. at 112:8-14.) Mr. Hall also relies on the assumption that the guesthouse (as well as other surrounding properties that survived the storm) benefited from stronger construction since they were built after the main residence. However, Mr. Hall does not know how anything about the construction of the structures. (*See supra* Part III(B).)

Additionally, Mr. Hall's selection of the EF Scale to support his opinion on causation is scientifically unreasonable. There are *stark* differences between the EF Scale (for tornadoes) and the Saffir-Simpson Hurricane Scale used for hurricanes. According to the Saffir-Simpson Hurricane Scale, "[s]ome structural damage to houses and buildings . . . with a minor amount of wall failures" suggests **sustained** hurricane wind speeds of 111 to 130 mph.<sup>2</sup> The EF Scale, on the other hand, would estimate similar wind speeds only after large sections of the roof structure had been removed and exterior walls had collapsed. (*See, Recommendation*, at 8 (EF-Scale Table).) In other words, by applying the EF Scale instead of the Saffir-Simpson Hurricane Scale, Mr. Hall can erroneously claim that lower wind speeds could have destroyed plaintiff's house.

The EF Scale was developed so that the National Weather Service ("NWS") would be able to rate tornadoes and estimate tornado wind speeds with a greater degree of accuracy from visible damage caused by tornadoes.<sup>3</sup> It is to be used by reference to damage observed in

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2 See <http://www.nhc.noaa.gov/aboutsshs.shtml>.

3 See <http://www.spc.noaa.gov/efscale/>.

tornado- like conditions – not hurricane conditions where wind and flood act concurrently.

Furthermore, Mr. Hall is not a NWS meteorologist storm surveyor, has not been trained by the NWS, and is not qualified to use the Enhanced Fujita Scale.

The EF Scale provides descriptions of previously observed damage in *non-coastal* structures that were of lower-bound, average, and upper-bound construction. (*Recommendation* at A1-69.) NWS storm surveyors who use the EF-Scale in the field look to the damage caused by a tornado to estimate the tornado's wind speeds; they do not isolate hurricane wind damage from hurricane flood surge damage for the purpose of estimating wind speeds; nor do they look to a hypothetical wind speed to determine whether the wind was the *cause* of damage to a particular house. Due to the complexity of the EF Scale, the NWS provides storm surveyors with extensive training, as well as a software program named "EFkit" which helps to guide their decisions in the field.<sup>4</sup> Mr. Hall is not a NWS storm surveyor, has not been trained by the NWS, and did not utilize EFkit software when he visited the site.

Mr. Hall's misunderstanding of the EF Scale is worsened by his apparent failure to review architectural or engineering plans for plaintiff's house. The EF Scale varies with the construction quality.<sup>5</sup> Yet, as shown above, *see supra* Part III(B), Mr. Hall is not fully informed as to the

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4 National Weather Service representatives at the Enhanced Fujita Scale Project emphasized that "extensive training needs to be developed and implemented to all storm surveyors." J.R. McDonald & K.C. Mehta, *Summary Report of the Fujita Scale Forum*, Wind Science and Engineering, Texas Tech University, Lubbock, TX, p. 20 (Dec. 10, 2002), [http://www.wind.ttu.edu/F\\_Scale/images/Fujita%20forum.pdf](http://www.wind.ttu.edu/F_Scale/images/Fujita%20forum.pdf). To fulfill this need, two training modules have been developed by the NWS for storm surveyors. James G. LaDue, and Edward Mahoney, *Implementing the New Enhanced Fujita Scale within the NWS*, NOAA/ NWS Warning Decision Training Branch, Norman, OK, p. 1 (2006), <http://ams.confex.com/ams/pdfpapers/115420.pdf>. The NWS has also created a computer program named "EFKit," to guide storm surveyors in the field. *Id.* at p. 1. According to NWS experts, the complexity of the EF-Scale has necessitated the use of computer support and multiple training modules: "With 28 Damage Indicators (DIs) and anywhere from 3 to 12 Degrees of Damage (DODs) for each DI, the EF-scale involves a relatively steep learning curve compared to the F-scale. To further complicate training and education, there is built in uncertainty in the EF-scale in that each DOD exhibits a wide range of valid winds that overlap EF ratings." *Id.*

5 The EF-Scale provides 28 "Damage Indicators" which represent various types of structures or items that can be damaged by tornado winds. Relevant examples near plaintiff's house might include: "No. 2: One- or Two-

construction of plaintiff's house and arbitrarily assumes it to be of poor construction. As a result of Mr. Hall's erroneous presumption of the construction quality of plaintiff's house, he underestimates the amount of wind needed to destroy plaintiff's house under this EF Scale methodology. Thus, even if Mr. Hall's use of the EF Scale were proper (and it is not), he misapplies his own methodology as a result of his incorrect assumption about the construction of plaintiff's house.

Finally, Mr. Hall errs in suggesting that the EF Scale provides a definitive correlation between wind speed and damage. The NOAA EF-Scale website clearly warns that the scale does not provide a definitive correlation between wind speed and damage:

**\*\*\* IMPORTANT NOTE ABOUT ENHANCED F-SCALE WINDS:** *The Enhanced F-scale still is a set of wind estimates (not measurements) based on damage. Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to the 28 indicators listed below. These estimates vary with height and exposure.*

See <http://www.spc.noaa.gov/efscale/ef-scale.html> (emphasis in original). A similar disclaimer is provided in the EF Scale Report: "[T]he limitations of the [original] scale are well known to the users," and include the lack of a "definitive correlation between damage and wind speed."

(*Recommendation* at 1.) This limitation was not remedied by the new scale because the Fujita Scale Enhancement "project did not have sufficient resources available to carry out a full-blown study using either the deterministic or simulation approach." (*Id.* at 1, 4). Consequently, Mr. Hall's assumption that the scale shows a definitive correlation between wind speed and causation are unreliable.

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Family Residences;" "No. 21: Metal Building System;" and, Numbers 27 and 28: hardwood and softwood trees. (*Recommendation* at A-1.) Associated with each Damage Indicator are several "Degrees of Damage," which might range from loss of shingles to total destruction of the item. To rate the Degree of Damage, the observer must know whether the home is of lower-, average- or upper- bound construction. For example, Degree of Damage No. 4: "Large sections of roof structure removed" in a one-family residence of lower-bound construction would suggest an estimated wind speed of 104 to 122 mph, while in a home of upper-bound construction it would suggest an estimated wind speed of 122 to 142 mph. *Id.* at A-3.

### **B. Mr. Hall's Conclusions Do Not Reliably Flow from Any Calculations**

Throughout his report, Mr. Hall identifies numerous elements of damage that he claims are attributable to winds, but presents no calculations to assess the wind forces or the resistance factor of the structures to support his conclusions. (Report, *passim*; Hall Dep. at 71:24-72:10.) Mr. Hall's Report does not contain any type of performance analysis of the house's hurricane resistant qualities or the various connections that held the house together. (Report, *passim*.) Mr. Hall assumes the quality of workmanship for purposes of applying the EF Scale in reverse, but shies away from assuming construction quality in order to determine the resistance factor necessary for calculating the wind damage to the structure. (*Id.*) In fact, Mr. Hall attributes his failure to perform any calculations on the fact that he would need load and resistance factors, but nobody knows how strong the structure was. (Hall Depo. at 72:2-10.)

In addition to being unscientific, Mr. Hall's methods run counter to his own advice in a February 2008 article about how to differentiate between wind and flood damage in Hurricane Katrina. (Neil B. Hall, *Differentiating Between Wind & Flood Damage in Hurricane Katrina*, 9<sup>th</sup> Annual Windstorm Insurance Conference, Jacksonville, Florida, 2008, at 1-2, attached hereto as Exhibit "5".) Mr. Hall states that to determine the cause of damage, one must analyze "the building's resistance to both wind and flood and its condition prior to the storm." (*Id.* at 1.) Here, however, Mr. Hall knew little more than superficial information regarding the construction of plaintiff's house, which was demolished when he inspected the site. (*See* Report at 4; Hall Dep. at 123:22-24, 124:18-22.) Thus, Mr. Hall offers no physical evidence that the damage to the plaintiff's house was caused by wind, rather than water. (Report, *passim*.) In addition, Mr. Hall's failure to provide any calculations assessing the forces of wind and water on plaintiff's house

flouts his own advice that it is "important" for a causation analysis to consider "what structural damage could have been caused by wind in the absence of flood" and "what structural damage could have been caused by flood in the absence of wind." (Hall, *Differentiating* at 1-2.)

Given the numerous post-hurricane photographs at Mr. Hall's disposal, his utter failure to analyze the physical damage observed to the plaintiff's house or employ any calculations renders his testimony inadmissible. Indeed, without Mr. Hall's EF Scale "analysis," his report does not even *purport* to provide a basis for concluding that wind, rather than water, destroyed plaintiff's house.

The Fifth Circuit has long recognized that "the goal of *Daubert* and this court's previous cases has been to bring more rigorous scientific study into the expression of legal opinions offered in court by scientific . . . professionals." *Allen*, 102 F.3d at 198. As the Supreme Court subsequently stated in *Kumho*, one of the goals of "*Daubert's* gatekeeping requirement" is "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." 526 U.S. at 152. Thus, "[t]he court should ensure that the opinion comports with applicable professional standards outside the courtroom and that it 'will have a reliable basis in the knowledge and experience of [the] discipline.'" *Watkins*, 121 F.3d at 991 (quoting *Daubert*, 509 U.S. at 592). Mr. Hall's conclusory assertions that wind caused certain elements of damage are just that – conclusory and without the required generally accepted scientific foundation. Therefore, Mr. Hall's opinions and methods fail to meet the fundamental requirements for expert testimony, and plaintiff cannot meet her burden to show it is admissible.

### **C. Mr. Hall Fails to Exclude Storm Surge as the Cause of Damage**

Mr. Hall's causation opinion is also unreliable because he fails to exclude storm surge as a likely cause of damage. From the outset, Mr. Hall dismissed water as a potential causal or contributing factor, despite his admission that the surge was 26 feet deep on plaintiff's property, including 4 feet above grade. (Report at 7.) In fact, aside from relying on Dr. Harned's hurricane chronology, Mr. Hall's report makes no effort to exclude this admitted storm surge as the cause of plaintiff's loss. His report simply attributes damage to the structures to wind, but provides no analysis of how the damage observed reflects damage from wind, rather than water.

Mr. Hall's Report also fails to consider whether flood-borne debris destroyed plaintiff's house, contrary to the advice in his February 2008 paper, where Mr. Hall noted that a "specific appreciation of other events including . . . flood-borne debris such as barges, trailers and containers" is "important" for understanding the "cause of slab claim damage." (Hall, *Differentiating* at 1-2.) Departing from his own advice, Mr. Hall's report does not consider whether the impact of surge-borne debris could have destroyed the plaintiff's house. (Report, *passim*.)

The "exclusion of alternative causes" is required for a reliable causation opinion. *Michaels v. Avitech, Inc.*, 202 F.3d 746, 753 (5th Cir. 2000); accord *United States v. Eff*, 461 F. Supp. 2d 529, 534 (E.D. Tex. 2006). The inadequate treatment of other potential causes necessarily undermines the reliability of an expert's opinion. *Burleson v. Tex. Dep't of Criminal Justice*, 393 F.3d 577, 587 (5th Cir. 2004); *Winters v. Fru-Con, Inc.* 498 F. 3d 734, 743 (7th Cir. 2007); see also *Cotroneo v. Shaw Envtl. & Infrastructure, Inc.*, 2007 WL 3145791, at \*5 & n.23 (S.D. Tex. Oct. 25, 2007).



In order for causation testimony to be admissible, there must be a reliable basis for concluding that the theory advanced by the expert is the probable cause of the damages. *See, e.g., Brown v. Parker Hannifin Corp.*, 919 F.2d 308, 312 (5th Cir. 1990). An expert's failure to negate possible alternative causes of the damage "renders his methodology unreliable," *Alexander v. Smith & Nephew, P.L.C.*, 98 F. Supp. 2d 1310, 1316 (N.D. Okla. 2000), and inadmissible. *Id.* Among other things, an expert must consider and rule out the combination of the probabilities that alternative causal candidates led to the damage because their combined probabilities may exclude even the possibility that the expert's causal candidate can exceed the "more likely than not" threshold for establishing causation. *See Cavallo v. Star Enter.*, 892 F. Supp. 756, 771 (E.D. Va. 1996), *aff'd in relevant part*, 100 F.3d 1150 (4th Cir. 1996). So, too, "if [the] experts failed to rule out alternative causes, it means that these alternative causes may have been the sole causes" of the damages. *In re Paoli*, 35 F.3d at 761 & n.31. An expert must rigorously evaluate and rule out potential alternative causes and not "simply pick[] the cause that is most advantageous to [plaintiff's] claim." *Viterbo*, 826 F.2d at 424; *see also Brown*, 919 F.2d at 312.

#### **V. Conclusion**

For the foregoing reasons, USAA CIC respectfully requests that its Motion to exclude the expert testimony and expert report of Mr. Hall be granted.

Respectfully submitted this the 3<sup>rd</sup> day of November, 2009.

**USAA CASUALTY INSURANCE COMPANY**

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**CERTIFICATE OF SERVICE**

I, Charles P. Copeland, hereby certify that on November 3, 2009, I electronically filed the foregoing Memorandum Of USAA Casualty Insurance Company In Support Of Its Motion To Exclude Expert Testimony Of Neil B. Hall with the Clerk of Court using the CM/ECF system, which will send notification of such filing to the following persons, and if such persons are not registered to receive filings pursuant to the CM/ECF system, the foregoing document will be delivered by other means:

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This the 3<sup>rd</sup> day of November, 2009.

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